EB-2023-0004
Alectra Utilities Corporation
2024 EDR ICM Application
Responses to Power Workers' Union Interrogatories
Delivered: September 28, 2023

Page 1 of 2

#### PWU-1

Reference: Exhibit 1, Tab 1, Schedule 4, Page 1 of 10

Each of the sixteen capital projects in this application was already filed with the OEB in Alectra Utilities' 2023 ICM application (EB-2022-0013), which sought ICM funding for urgently needed underground cable renewal investments in both 2023 and 2024. All of the planned projects in both years were identified and planned on the same basis, to address the same issue: deteriorating underground distribution cable in various communities that Alectra Utilities serves. While the OEB did not establish ICM riders for the 2024 projects in the prior application, its decision on the point was based solely on the OEB's policy on multi-year ICM applications, and not on the merits of the proposed projects or their eligibility for ICM funding.4 On the merits of the proposed ICM projects, the OEB found that both the 2023 and 2024 requests have a significant influence on operations and on the reliability of distribution service in the PowerStream and Enersource RZs. The eleven proposed ICM projects in the PowerStream RZ in this application are the same as the 2024 projects identified in the 2023 ICM application for the PowerStream RZ. The five proposed ICM projects in the Enersource RZ consist of four of the 2023 ICM projects and one 2024 ICM project from the 2023 ICM application.

#### Questions:

- a) Did Alectra consider any ICM projects that were not previously identified in the 2023 ICM application?
  - i. If yes, please provide details of those projects and explain why Alectra is not proposing to include those projects as part of this application.
  - ii. If no. why not?
- b) Did Alectra consider ICM projects in its other rate zones?
- c) Are there any 2024 projects identified by Alectra in its 2023 ICM application that are not included in this ICM?

#### Response:

- 1 a) and b)
- 2 Alectra Utilities considered five additional cable renewal ICM projects in the PRZ and ERZ as
- 3 identified in Table 1, below. Based on the engineering assessment of cable failures completed
- 4 during the 2022-2023 period, it was determined that these projects can be completed in later
- 5 years.

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Alectra Utilities also considered 2 projects in the BRZ and one project in the HRZ which will

- be completed in later years as the reliability impact to customers is not as material as the
- 9 proposed ICM projects.

# Table 1 – Additional priority projects

Project #	Project Name	Rate Zone
152383	Cable Injection - (AREA 39) - Erin Mills Pkwy & Thomas St, Mississauga	ERZ
152385	Cable Injection Project - (R23) - Bathurst - Weldrick - Yonge - Carville, Richmond Hill	PRZ
152492	Cable Injection Project - (B23) - Cundles Rd and Janine St, Barrie	PRZ
152388	Cable Injection Project - (V17) - Langstaff - Keele - Rutherford - Dufferin, Vaughan	PRZ
152502	Cable Replacement Projects - (M15) Sir Constantine Dr & Parkway area of Markham	PRZ
152317	Cable Injection Project - (H1) - Kennedy - Mayfield - HeartLake - Conservation, Brampton	BRZ
152318	Cable Injection Project - (H5) - Kennedy - Steeles - Hwy 410 - Hwy 407, Brampton	BRZ
152454	Cable and duct replacement - Golf Club Dr, Hamilton	HRZ

c) Table 2 below provides a list of projects identified in the 2023 ICM application which are not part of the 2024 ICM application.

# Table 2 – 2023 ICM Application Projects not in 2024 ICM Application

ICM#	Project Name
151889	Cable Replacement- Tomken Trail in Mississauga (AREA36)
151432	Cable Injection - (AREA43-51) Edwards Blvd area of Mississauga
	Cable Injection - (AREA58 & 59) - Winston Churchill & The Collegeway,
151436	Mississauga

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Page 1 of 2

#### PWU-2

#### Reference 1: Exhibit 2, Tab 1, Schedule 1, Page 12 of 24, lines 2-9

Alectra Utilities' total proposed ICM investment in the PowerStream RZ is \$17.3MM in 2024, which is significant relative to Alectra Utilities' overall capital budget in 2024. The total proposed investment will avoid approximately 106 cable failure related outages in the PowerStream RZ, where each outage would impact 265 customers for approximately two hours per outage. Further, Alectra Utilities has forecast that the combined proposed ICM investment in both RZs will avoid future cable renewal costs of approximately \$108MM, largely attributable to injecting cable now that would otherwise need to be replaced in the future as a result of missing the cable injection feasibility window.

Reference 2: Exhibit 2, Tab 1, Schedule 1, Page 17 of 24

Table 10 – ICM Monthly Bill Impacts – PowerStream RZ (before HST and OER)

Rate Class	Unit	kWh	kW		% Increase vs 2023 Total Bill
Residential	kWh	750		\$0.16	0.13%
General Service Less Than 50 kW	kWh	2,000		\$0.37	0.12%
General Service 50 To 4,999 kW	kW	80,000	250	\$7.03	0.06%
Large Use	kW	2,800,000	7,350	\$132.88	0.04%
Unmetered Scattered Load	kWh	150		\$0.07	0.22%
Sentinel Lighting	kW	180	1	\$0.08	0.19%
Street Lighting	kW	1,052,445	2,962	\$382.71	0.19%

#### Reference 3: Exhibit 2, Tab 1, Schedule 1, Page 24 of 24

Table 17 – ICM Monthly Bill Impacts – Enersource RZ (before HST and OER)

				ICM Monthly	% Increase vs
Rate Class	Unit	kWh	kW	Rate Rider	2023 Total Bill
Residential	kWh	750		\$0.12	0.10%
General Service Less Than 50 kW	kWh	2,000		\$0.41	0.13%
General Service 50 To 499 kW	kW	100,000	230	\$5.52	0.04%
General Service 500 To 4,999 kW	kW	400,000	2,250	\$34.36	0.05%
Large Use	kW	3,000,000	5,000	\$138.39	0.04%
Unmetered Scattered Load	kWh	300		\$0.07	0.13%
Street Lighting	kW	33	0.1	\$0.02	0.29%

#### **Questions:**

- a) Please provide details of the \$108MM avoided in future capital renewal expenditures.
- b) Please provide an estimate of the rate impact of future cable replacements in comparison to the proposed ICM rate impact.

# Response:

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- 1 a) Please see Alectra Utilities' response to 1-Staff-17 a) ii).
- 3 b) The estimated rate impact of future cable replacements in comparison to the proposed ICM rate impact is provided in Tables 1 and 2 below.

# Table 1 – PowerStream RZ Bill Impact Comparison

Rate Class	2024 ICM Monthly Rate Rider	Monthly Rate Rider
Residential	\$0.16	\$0.69
General Service Less Than 50 kW	\$0.37	\$1.73
General Service 50 To 4,999 kW	\$7.03	\$30.23
Large Use	\$132.88	\$572.29
Unmetered Scattered Load	\$0.07	\$0.30
Sentinel Lighting	\$0.08	\$0.36
Street Lighting	\$382.71	\$1,291.79

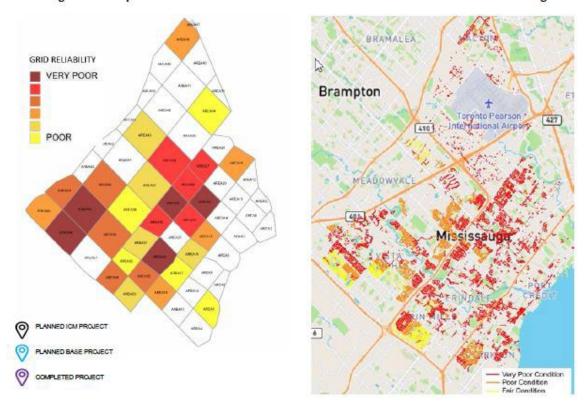
# Table 2 – Enersource RZ Bill Impact Comparison

Rate Class	2024 ICM Monthly Rate Rider	Monthly Rate Rider
Residential	\$0.12	\$0.49
General Service Less Than 50 kW	\$0.41	\$1.51
General Service 50 To 499 kW	\$5.52	\$23.75
General Service 500 To 4,999 kW	\$34.36	\$148.05
Large Use	\$138.39	\$594.88
Unmetered Scattered Load	\$0.07	\$0.28
Street Lighting	\$0.02	\$0.05

# PWU-3

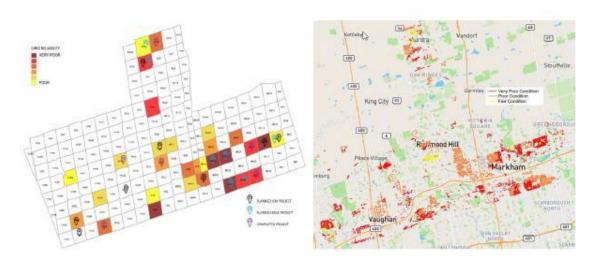
# Reference 1: Exhibit 3, Tab 1, Schedule 2, Page 15 of 17

Figure 16: Maps of XLPE Cable Failures and Condition of XLPE Cables for Mississauga<sup>34</sup>



## Reference 2: Exhibit 3, Tab 1, Schedule 2, Page 16 of 17

Figure 17: Maps of XLPE Cable Failures and Condition of XLPE Cables for PRZ35

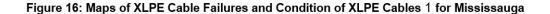


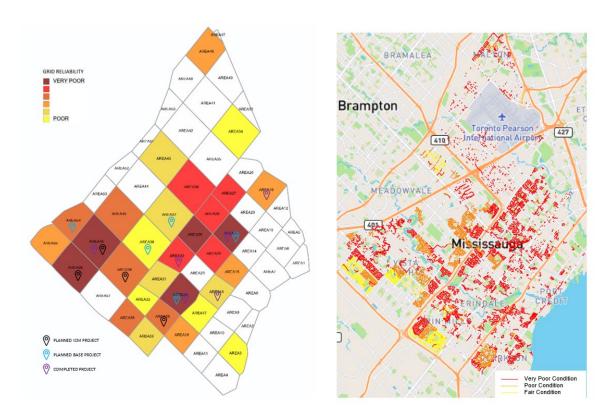
## **Questions:**

- a) Please provide a version of Figure 16 indicating the location of planned and completed projects (as they are presented in Figure 17).
- b) Why are there no planned projects in PowerStream RZ areas identified as very poor (dark red) or near very poor (red and orange) in Figure 17?
- c) If there are Enersource RZ areas identified as very poor, or near very poor, without planned or completed projects, please explain why Alectra is not planning to complete cable renewal projects at this time.

#### Response:

1 a) Please see Figure 16 below indicating the location of planned and completed projects.





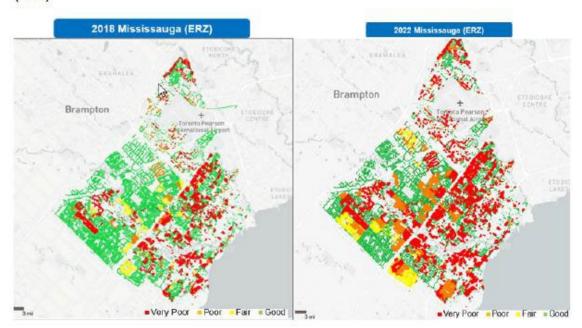
b) Figure 17 does identify planned projects in areas with both very poor/poor reliability and very poor/poor condition assets. For example, Project 151329 Raymerville (Exhibit 3, Tab 1, Schedule 4, page 19, Figure 30) and Project 152373, Joan of Arc (Exhibit 3, Tab 1, Schedule 4, page 19, Figure 33), are examples of a planned projects in the PRZ in neighbourhoods with very poor assets and failing cables.

c) Alectra Utilities' engineers identify emerging areas and hotspots for cable failures and then completes a full engineering assessment. The engineering assessment determines the proposed timeline to address the hotspot before the issue cascades into more extensive outages. Part of this assessment involves performing the overlay of condition with reliability. If the condition of the assets is poor, but there are no reliability concerns, then the area is not considered a 'hot spot' and no investment is generated.

## PWU-4

## Reference 1: Exhibit 3, Tab 1, Schedule 2, Page 6 of 17

Figure 7: Deterioration of Underground XLPE Cable from 2018 to 2022 in Mississauga (ERZ)



## **Questions:**

a) If available, please provide similar figures for the Horizon, Brampton, and Guelph rate zones.

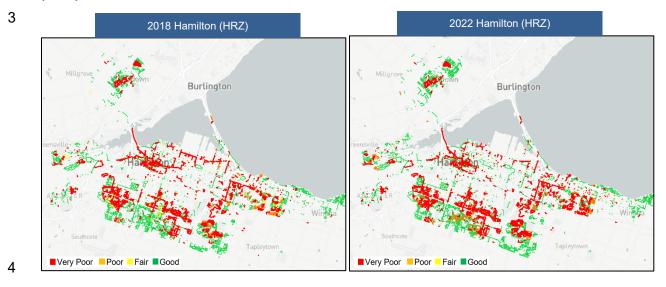
# Response:

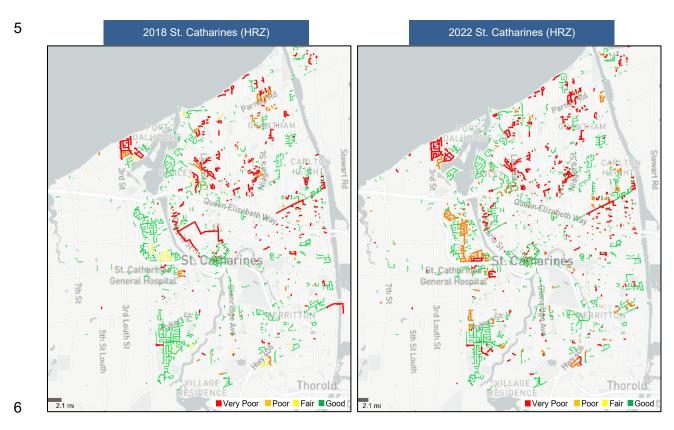
- 1 a) Please see Figures 1 to 3 showing the deterioration of Underground XLPE Cable from 2018
- to 2022 in Alectra West (Hamilton and St. Catharine's), Brampton and Guelph, respectively.

# Figure 1 – Deterioration of Underground XLPE Cable from 2018 to 2022 in Alectra West

# 2 (HRZ)

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# Figure 2 – Deterioration of Underground XLPE Cable from 2018 to 2022 in Brampton (BRZ)

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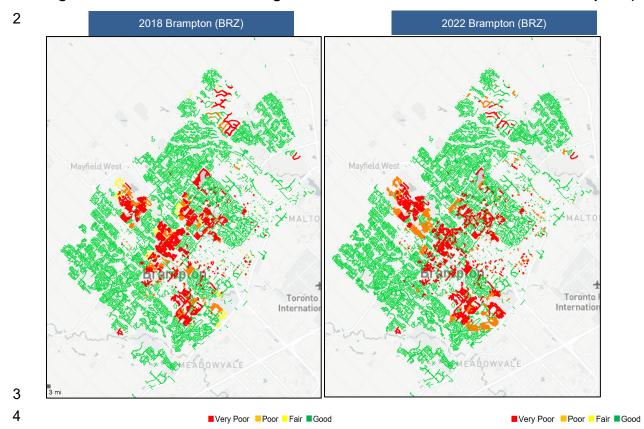


Figure 3 – Deterioration of Underground XLPE Cable from 2018 to 2022 in Guelph (GRZ)

